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# **Faculty Working Papers**

HOW CONSUMERS USE INFORMATION

**Jagdish N. Sheth, Professor, Department of  
Business Administration**

#530

**College of Commerce and Business Administration  
University of Illinois at Urbana-Champaign**



FACULTY WORKING PAPERS

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November 20, 1978

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Summary:

How consumers use information is vital to understand for the communicator and the advertiser. There are three aspects about consumer's use of information. First, consumers do not use raw information but process it before using it. This processed information is significantly different from information provided by the communicator with respect to magnitude and descriptive as well as evaluating meaning of the information. Second, consumers are processed information in conjunction with other experiences in order to make judgments with respect to product or brand name in terms of attitudes, intentions and behaviors. The mechanisms of judgments are not fully known, but they include the compensatory, conjunctive, disjunctive and lexicographic models of judgment. Third, consumers use information in five different ways: (1) to evaluate alternatives in making a choice; (2) to reinforce past choices as a rationalization process; (3) to resolve conflict between buying and postponing; (4) to remind when to buy and consume frequently purchased products; and (5) to acquire knowledge for epistemic purposes.



## HOW CONSUMERS USE INFORMATION

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### Introduction

It is extremely important for the mass communicators including the advertisers to know how consumers use information. Such an understanding will go a long way toward developing more effective communication strategies as well as recognize the limits of mass communication.

Furthermore, it will enable the communicator to minimize the side effects of mass communication such as irritation, socialization and value confrontation.

I strongly believe that mass communication, in general, and advertising, in particular, does not have to be offensive, irritating or morally degrading in order to be effective. It is possible to persuade the consumer or influence his buying behavior through socially acceptable content and style of advertising and communication if only we would take time out from our hectic schedules to listen and learn more about how and why consumers use information.

There are three distinct aspects to learn about the way and why consumers use information:

1. Consumers do not use raw information but process it before using it. What the communicator provides is only raw information from the consumer's point of view, no matter how nicely and fancily it is packaged by the communicator. He feels the need to process it, add other ingredients to it and, transform it into something that is usable. Just as the consumer does not use the packaged or canned foods as they are, but prepares a meal out of them, so do consumers process and transform information we communicate to him. While the packaged or canned food is a finished product from the manufacturer's or marketer's point of view, it is at best a semi-finished product from the consumer's point of view. The same analogy holds true for communication. (Sheth 1973; Howard and Sheth, 1969).
2. Consumers use many different and complex mechanisms with which they convert processed information into judgments related to brand or product choice, attitudes or intentions, and loyalties or images toward products, companies, and brand names. (Sheth and Raju, 1976; Wright 1973; Park and Sheth, 1975).
3. Consumers use information for many reasons other than to form attitudes and opinions. Therefore, communication can perform many other functions than the most frequently used objective of persuasion and attitude change. (Sheth, 1973).

I will describe each of these three aspects in greater detail in the following sections.

Raw vs. Processed Information

The packaged information provided by the communicator or advertiser is still a raw information from the consumer's viewpoint. He processes it in order to make it more useful to him. The processed information differs from the raw information with respect to three things:

1. The quantity of information he considers relevant, useful and worth retaining in the long-term memory is only a fraction of the total information communicated to him. Just as we throw out the peel and the pits of a fresh fruit and only consume a part of the total fruit, so does the consumer when he reads, listens or watches a television commercial. Unfortunately, the parts of the total information that he throws out may be precisely the ones the advertiser wants him to retain, including the association between the brand name and the slogan, or the jingle, or the music.
  
2. The descriptive meaning of certain attributes, beliefs and objects may be different from what the communicator had in his mind when he developed the message, the format, and the style dimensions of a communication. For example, certain shapes, sizes, colors and background scenes may be designed to communicate one meaning, but the consumer per-

ceives a very different, if not an inverse meaning in that communication.

The problem of distortion in the descriptive meaning of the information communicated is even greater when we use more abstract and nonphysical stimuli through words, subtle meanings, and other symbolic representations. It is, therefore, not surprising that people thought the telephone company was tapping their telephone conversations when it had a campaign based on the slogan, "We hear you!"

3. Consumers process information by which the evaluative meaning of a communication is transformed into something different than what the communicator had intended. For example, the advertiser may use the word "instant" to communicate quickness in a food product, but the housewife may associate "too much processed," "bad tasting" or "socially undesirable" connotations to the word "instant." In short, consumers often associate different sets of values, criteria or motivations to the same information than what is intended by the communicator due to ambiguity and multiple associations possible to a physical or symbolic (picture, language or idiom) stimulus utilized in the communication.

Of course, the trick is to use those physical or symbolic representations in a communication which has one and only one meaning and, therefore, minimize the danger of being misunderstood by the consumers. This problem of distortion in the evaluative meaning of a commercial communica-

tion is further compounded by the inherent suspicion and mistrust of business organizations especially in the eyes of the social critics and consumer advocates.

In my opinion, most of the standard measures of advertising effectiveness have nothing to do with measuring the impact of advertising on the consumer choice or even attitudes but are primarily limited to measuring the processing of information the consumer performs. Thus, all the psychophysical measures including the pupil dialation and the newer techniques of brain waves primarily measure the quantity distortion between raw and processed information. Similarly, the standard measures of advertising recall and recognition measure the processing of information with respect to the descriptive meaning of the communication. Finally, the measures of preferences, attitudes and intentions reflect the processing of information on the evaluative dimension.

It is also very interesting to identify who controls the processing of information: Is it the advertiser, the consumer or both? It seems that there are three distinct determinants of processing of information from raw to processed information.

The first is the communicator himself. How well he packages information into a communication must, of course, affect the magnitude and meaning aspects of processing of information. The more finished a particular communication, the less processing the consumer will have to do to make it useful. Similarly, the less the total amount of information in a communication,

the less will be the tendency on the part of the consumer to throw away or cut apart that communication. It is, perhaps, this aspect which has motivated advertisers to stick to the rule of making only one claim in a given commercial. Finally, the longer the commercial, proportionately less should be retained by the consumer, because the consumer has cognitive limits of learning at a given point in time.

Similarly, the more ambiguous and multiple-meaning the physical and symbolic representations of product or company attributes, the greater should be the processing on the descriptive and the evaluative meanings of a communication.

Thus, there is no question that the communicator such as an advertising agency can control the processing of information from raw information to useful information. In fact, we discriminate ad agencies in terms of their creative talents which primarily reflects the differences in skills among ad agencies as to how to package the information. The creative people may be comparable to the Chinese chef: The ingredients are all there, but how you put them together makes the difference between good Chinese food and superb Chinese food.

However, processing of information is not solely controlled by the magic of the creative people in ad agencies. It is also controlled by the consumer himself, which is a frustrating and irritating fact of life the ad agencies must recognize and reckon with. Since consumers vary in their characteristics, it

sumer depending upon the situation in which he receives it.

For example, people often get irritated and consequently ignore the whole communication if it becomes intrusive and interruptive to other competing activities the consumer is engaged in which are more salient to him. This may explain the increasing consumer irritation reflected toward television advertising. Similarly, a telephone sales call becomes a nuisance if it interrupts a meeting or report writing.

Once again, our knowledge about the specific situational factors which influence the processing of information is highly limited. In fact, we often treat that as a random phenomenon or a covariate rather than a main effect factor in measuring advertising effectiveness.

There are probably two broad categories of situational factors which need to be examined for a specific communication. The first is the background or the context in which the communication is received by the consumer. The context can be the medium, the program, the editorial, and even the time and place of communication. For example, cigarette advertising may not be compatible in the health magazines, or a sexy commercial on children's television programs may be processed differently than if it were on an adult television program.

The second category of situational factors is the antecedent situations. The same consumer may be more or less receptive to the same communication depending upon the antecedents including his mood and emotions aroused by those anteced-

is important to recognize that the same communication cannot please everybody or be useful to everyone.

While many different consumer characteristics have been suggested, investigated, and actually utilized in media research, we really don't know enough about the consumer to pinpoint which characteristics are relevant determinants in the processing of information. My own view is that neither the standard demographics nor the more recent psychographics or life styles are as useful as the media research people would make us believe. Furthermore, both the demographics and the life styles characteristics are at best surrogates or more fundamental descriptors of other factors which really determine or control the processing of information.

There are really two consumer characteristics which we know for a fact to be the mediating variables in the processing of information with respect to quantity, description and evaluation aspects of information. They are prior familiarity and prior attitudes toward the product and the communication. In fact, most advertising effectiveness studies clearly indicate that the same advertisement is more or less effective depending upon whether the consumer is familiar or not, and whether he has positive or negative attitudes toward the product and the communication.

Finally, a third determinant which we have increasingly become aware of is the situational characteristics. The same communication is often processed differently by the same con-

dents. For example, a food or beverage commercial may be more attended and less processed if the consumer is hungry or thirsty than if he is full.

In summary, it is important to note that the magnitude and meaning of information is changed from the raw to the processed information as a function of the interaction of the three factors: packaging skills of the communicator, consumer characteristics and situational characteristics. This may enable us to explain why the same ad agency or its creative staff do not consistently generate successful advertisements: The processing of information is not exclusively a function of how well the ad agency packages information in a communication. This may be a blessing in disguise since it tends to preserve competition among ad agencies.

#### Mechanisms of Judgment

How does the consumer utilize processed information in making judgments about a product or brand name in terms of attitudes, intentions, behaviors and loyalty? This is a very complex and, as yet, only a partially known phenomenon in consumer behavior. It would appear that the human mind has some calculus with which processed information is further transformed into human judgments. There are several hypotheses and speculations about the human calculus, but we really do not fully know how and when they function.

Before we describe the human calculus in some detail, there are two important aspects of consumer judgments as they pertain to information provided by the communicator which should be pointed out. First, not only does the consumer process information provided by the communicator, he makes that information consistent with whatever prior experiences and knowledge he has acquired about the product or the brand name. In other words, processed information is only a partial input toward making the judgment about the product or the brand name. This is fairly important to recognize because it clearly indicates the difficulty of associating cause and effect between a specific advertising communication and the consumer judgment. In fact, without very complex experimental designs, it is virtually impossible to establish the cause and effect relationship for a specific advertising campaign. Second, the processed information is evaluated, assessed and compared against a set of consumer motivations and choice criteria relevant to a given product or brand judgment. In other words, consumers not only process information provided by the advertiser or the communicator, but evaluate it by using a set of values, motivations or choice criteria specific to a product class. This value specific evaluation makes the impact of processed information on human judgment even more difficult to assess and measure. Furthermore, it is compounded by the fact that different consumers possess different criteria, motivations or values for a given product class. Therefore, the same communication will be mediated by different dimensions of consumer values resulting in divergent judgments. Thus, the same advertising communication will be liked by one consumer and hated by

another consumer; the same advertisement will make one buy the product and make the other consumer avoid the product.

Now, we will enumerate four major types of judgment calculi researchers have talked about in consumer behavior.

The first calculus is called the compensatory judgment model. It suggests that consumers average or sum all aspects of a product or brand name before making a judgment. As such, it implies that weak aspects can be compensated by strong aspects and that consumers make trade-offs between good and bad aspects in their mind. How do they compensate and what weights do they assign to each area even among researchers who believe in the compensatory judgment model.

An almost opposite calculus is called the conjunctive judgment model. It implies that the consumer sets up some minimum criterion for each aspect of judgment, and the product or the brand name must meet this minimum level on all the aspects in order to have a favorable judgment in terms of attitudes, intentions and behavior. There is no compensation by a strong evaluation on one aspect, for a weak evaluation on the other aspect. Furthermore, it really does not matter how good the product is above the minimum so long as it meets the minimum standards on all the aspects set by the consumer. The conjunctive model is often considered a more general description of the satisfying principle suggested by Herbert Simon and the perceived risk principle suggested by Raymond Bauer.

Some researchers think that consumers simply do not have the capacity to think in terms of the compensatory or the conjunctive judgment models since they require simultaneous calculations on several or all aspects of a human judgment. They believe that the consumer simplifies the task by using two other judgment rules which are called the disjunctive judgment model and the lexicographic judgment model.

The disjunctive judgment model is the simplest of all judgment models. It implies that consumers look for one and only one aspect in making product or brand name judgments. For example, in buying toothpaste, a consumer may be interested only in brightening and whitening of teeth and, therefore, taste, flavor, fluoride content and price are all irrelevant so far as his judgment is concerned. If a brand name does not offer the brightening and whitening aspect, he will make negative judgments. Furthermore, he will have more positive attitude toward that brand name which offers the maximum brightening and whitening benefit in the product. In fact, he will select that brand name which he perceives to be the best on whitening and brightening aspect regardless of taste, price or fluoride content. Depending upon the number of consumers in the market place who look upon different brand names with respect to a particular aspect of interest to them, we would expect a complete monopoly by one brand name such as Campbell's Soups to market segments and submonopolies by several brand names such as Colgate, Crest and Close-Up toothpastes.

The fourth calculus is called the lexicographic judgment

model. It suggests that consumers make positive or negative judgments in terms of attitudes, intentions and behavior by sequentially looking at all alternatives with respect to one criterion at a time. For example, if taste, price, convenience and nutrition are all relevant criteria in that sequence of importance to a consumer, he will first evaluate all brand names with respect to taste, remove those which do not meet his taste criterion, and then sequentially evaluate the remaining brand names with respect to price, remove those which are not satisfactory on price, and so on until all the criteria are exhausted. The brand name which survives this elimination process on a sequential basis is the one toward which he has the most positive judgment in terms of attitudes, intentions and buying behavior.

The above four types of human calculi are what we seem to know as existing judgmental rules in consumer behavior. It does not mean that there are no other judgmental rules or that the consumers utilize some hybrid combination of the four mechanisms of judgment just described. We simply do not know enough to make any strong statements one way or the other. It forces the researcher to treat the consumer still as a black box which needs to be deciphered before we can generate laws of consumer behavior comparable to laws of physics and mechanics.

## Five Ways Consumers Use Information

Consumers use information for many reasons including making judgments about product or brand name choices. It is important for the communicator or the advertiser to understand the purpose for which the consumer pays attention to his communication, processes information contained in it, and utilizes it, because such an understanding will enable him to package and offer communication in a manner which will be most responsive effective. There are five distinct ways consumers tend to use information provided in a communication.

The first and the most recognized purpose for the consumer to pay attention to the communication and process the information contained in it, of course, to comprehend and to evaluate various options in making choices. He must choose among a set of competing products and brand names and he hopes that information contained in the communication will make him a better or more rational choice maker. Unfortunately, we seem to offer information in our communications in such a way that rather than help him decide correctly, he seems to be more confused and frustrated in the process. From his perspective, we seem to offer too much information in too great an ambiguous fashion and intentionally packaged in ways to increase rather than decrease conflict in choosing among brand names by making claims and counterclaims. No wonder the consumer expresses skepticism, irritation and dissatisfaction toward commercial communication even though he knows he needs and wants information provided in our communications. I think we have worried

more about how to capitalize on client's competitive strengths and weaknesses in less about how to make information more useful to the consumer in our advertising decisions both with respect to copy and media selections. I worry about this issue much more than any other issue related to advertising as an institution because as a nation, we strongly believe that information is not only useful but essential in making rational choices. Any institution which tends not to fulfill this need is, therefore, likely to be criticized and questioned by the society.

A second purpose for which consumers use information is to reinforce their past choices. This is a part of his rationalization process in order to justify to himself and to others that the choice he made under a lot of uncertainty, conflict and confusion was still the best choice. This is such a natural and universal human trait that to ignore its existence and relevance in communication would be truly myopic for both public policy makers and advertisers. Instead, we must look upon it as another need for information equally important as the need for information before making the decision. Surprisingly, despite all the evidence from Starch readership and Ted Bates viewership research, there has been very little planned effort by the communicators to provide information to the consumer which is reinforcing in nature and timed so that it is available after making the purchase choice. The consumer seems to satisfy his need for rationalization by methods and sources which are clearly less efficient, and often resemble underground or bootlegging activities to be done quietly, incon-

spicuously and with fear of social chastization. I think there is a good opportunity for the communication industry to satisfy this human need on a planned basis.

A third purpose for which consumers use information is to resolve the conflict they constantly face between buying or postponing the purchase of goods and services. Given limited resources and an increasing number of desires and wants converted into needs due to affluence of our society, the consumer seems to be in constant conflict between buying now and paying later or foregoing some of the needs and wants. He looks toward communication in general, and advertising in particular, to resolve this conflict between consuming or postponing. Unfortunately, there are too many communications which tilt the balance in favor of buying and consuming rather than postponing or foregoing satisfaction of some needs and wants. There are very few anti-consuming campaigns except in the areas of conservation of scarce resources or consumption of undesirable or harmful products or services such as drinking and smoking. It would appear that we can learn a great deal from this use of information consumers make, and attempt to balance what should and should not be promoted to minimize social criticism being levied against advertising as an institution devoted toward producing a high consumption and materialistic society.

The fourth use of information consumers make is to treat it as a reminder to purchase and consume frequently consumed products such as foods and beverages. Many housewives, for

example, look at the weekly advertisements by supermarkets as shopping lists of what to buy when from which supermarkets based on competitive promotional efforts. Similarly, all beverage commercials on television tend to heighten the thirst need which triggers consumption and eventual replacement purchase of consumer's preferred beverage. It is, therefore, not uncommon to expect that competing beverage ads may actually enhance consumption of the most popular brands and types of beverages such as soft drinks even though the ads are promoting drinking of beer, coffee or milk. The use of communication and advertising to remind the consumers to consume and buy the product is minimal and seldom planned. It would appear that more direct effect on sales can be achieved for frequently purchased products if the advertisements are planned with respect to content and media to trigger a reminder to consume almost on an impulsive basis. The only exceptions seem to come from the advertisements by fast food franchise companies, and the point of purchase promotions in stores. A lot more can be done in this area.

The final purpose for which consumers use information is to satisfy their epistemic needs of being informed, knowledgeable and socially at par with others in keeping up with trivia and general knowledge about contemporary events surrounding our daily life. The information provided in the communication, therefore, simply performs an epistemic function. While this has been traditionally the role of news media, consumers do pick up a lot of general knowledge and conversation pieces from advertising communications. In fact, some have even argued that consumers pay attention and retain that information

much more which is more the background and the setting, and much less information which is specific to the product or the brand name. This results in the socialization effect attributed to mass communication.

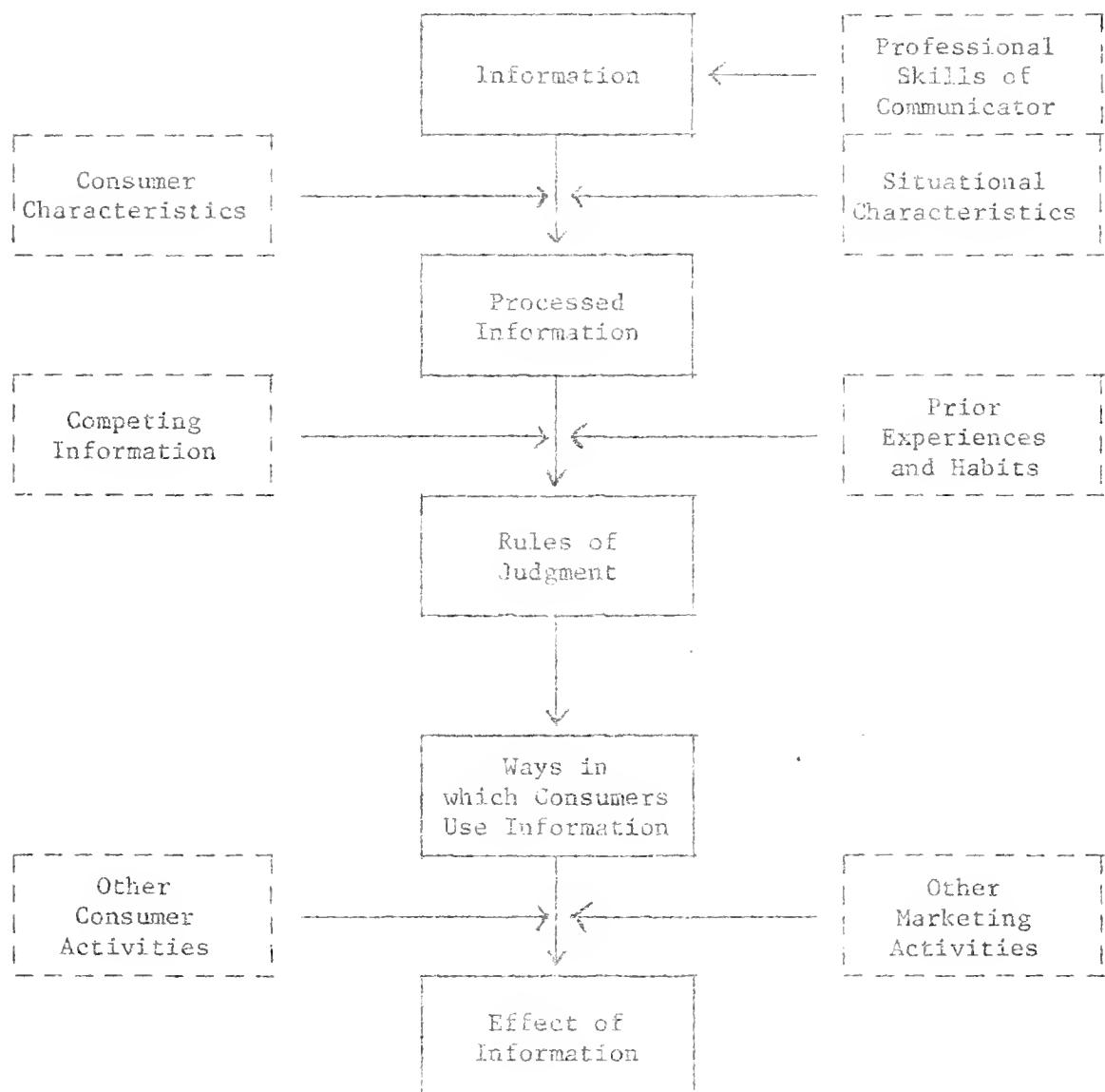
The five ways consumers use information is very relevant to understand so that we do not limit the use of communication strictly as a means to bring about persuasion and attitude change. In fact, it would be nice to learn the relative degree to which all communications are used for each of the five purposes. My own hypothesis is that consumers use information from advertising communication much more for epistemic and reminder purposes than for evaluation and choice making purposes, even though we tend to provide more information for the latter.

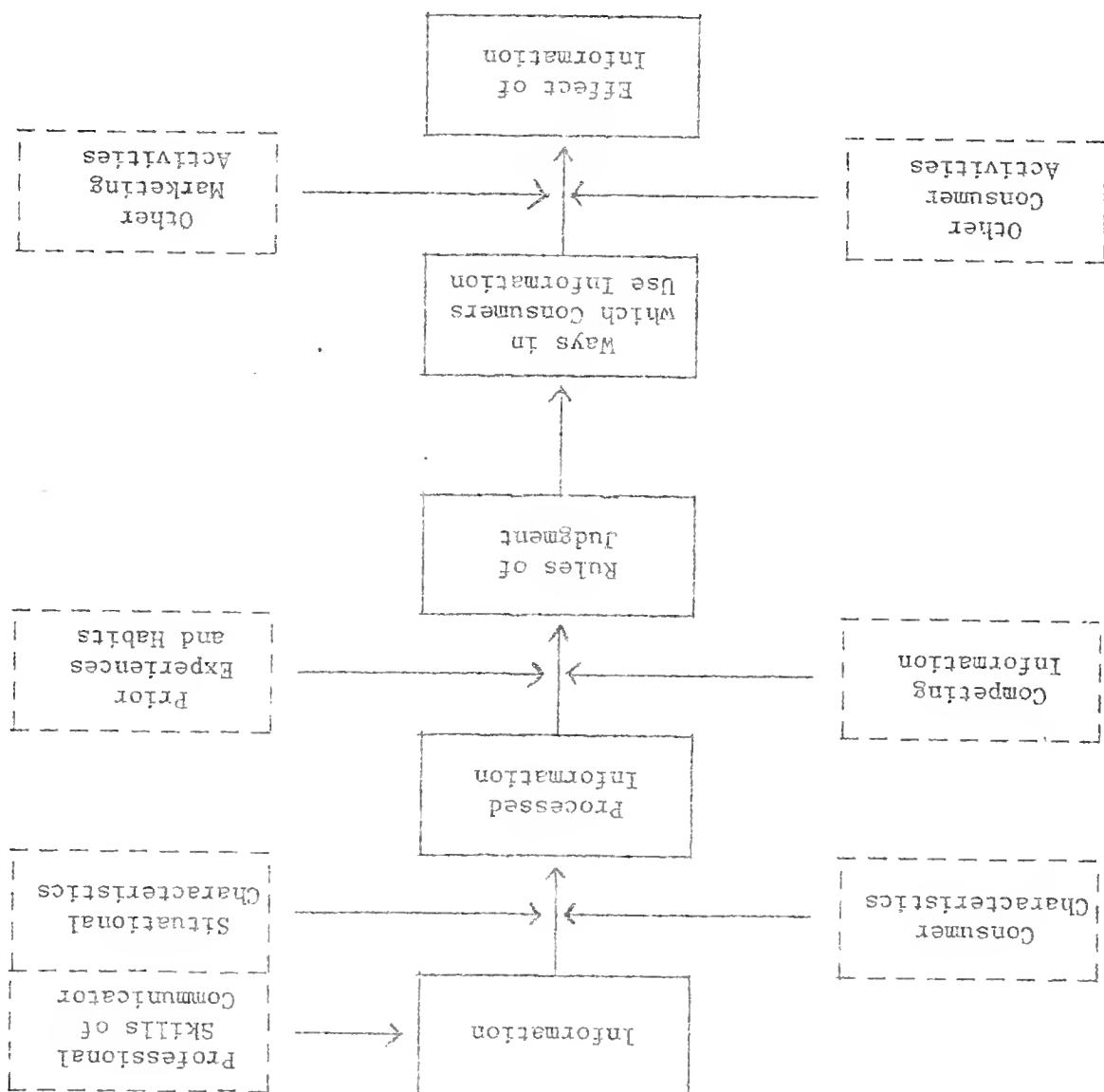
### Summary

Figure 1 summarizes the process of transformation and change which takes place before information provided by the communicator is actually used by the consumer. Consumers do not use raw information provided by the mass communication but process it before using it. This processed information varies significantly from the information packaged by the communicator with respect to magnitude and descriptive and evaluative meaning of information. Furthermore, consumers do not make judgments about the product or the brand name solely based on

Figure 1

## How Consumers Use Information





HOW CONSUMERS USE INFORMATION

he can demonstrate cause and effect relationship between a specific advertising campaign and a consumer response such as purchase behavior, there are only three conclusions we can draw. First, he must be nuts to believe that he can demonstrate the cause and effect relationship. Second, the client must be nuts to believe that the ad agency can actually demonstrate cause and effect relationship between an advertising campaign and the consumer response. Third, the communicator must be a good magician and can effectively create the illusion of pulling the rabbit out of the hat.

Outside of the controlled laboratory experiments, I really don't think we can scientifically experiment to validate a cause and effect relationship between advertising and consumer response without the following procedures: (1) Develop a truly complex experimental design with almost unlimited resources and experimental groups to match the complexity of consumer's use of information described in this paper; (2) Treat many other influences and factors as random events even though they may be far more dominant than the advertising campaign; and (3) Use other influences as covariates to factor out their effects, and attempt to link the effect of an advertising campaign on the marginal or residual consumer behavior.

In fact, the filtering and transformation process that consumers engage in to use information provided in communication, and especially in advertising communication, and the effects of other marketing characteristics (quality, price, availability) and consumer characteristics (familiarity, habits, life styles

and demographics) clearly suggest that advertising should be looked upon as having marginal, conditional or interactive effect rather than as having absolute, a priori, or main effect on consumer responses.

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